III. AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1 – 20 (Cancelled)

21. (New) An apparatus comprising:

a housing;

a bollard reciprocatingly received within the housing;

a plate disposed within the bollard;

a spring reciprocatingly received within the bollard, and secured at a proximal end to the plate;

a lift mechanism received at least in part within the spring, which lift mechanism provides for reciprocating the spring between compressed and extended positions, and which compression and extension of the spring causes reciprocating of the bollard between retracted and extended positions.

22. (New) The apparatus of claim 21 further comprising:

an underground foundation of reinforced cementitious material that secures the housing in a stationary position.

23. (New) The apparatus of claim 22 wherein:

the foundation transfers the force of impact on a bollard in an extended position to the ground surrounding the foundation.

24. (New) The apparatus of claim 22 wherein:

the foundation comprises tensioned tendons.

25. (New) The apparatus of claim 21 wherein the lift mechanism comprises:

a cylinder;

a piston shaft reciprocatingly received within the cylinder, which piston shaft is secured at a proximal end to the plate; and

a piston terminating a distal end of the piston shaft, which piston divides the cylinder into an upper chamber and a lower chamber.

26. (New) The apparatus of claim 25 further comprising:

a valve system; and

a flow line connected to operate on the upper chamber and the lower chamber through the valve system;

wherein the valve system has a plurality of operative positions to cause the flow line to operate on the upper chamber and the lower chamber.

27. (New) The apparatus of claim 26 wherein:

the valve system has an operative position that causes the flow line to exhaust pressure from at least one of the lower chamber and the upper chamber to equalize the pressure between the lower and upper chambers.

28. (New) The apparatus of claim 27 wherein:

the equalization of pressure between the upper and lower chambers causes the spring to move from a compressed position to an extended position.

29. (New) The apparatus of claim 26 wherein:

the valve system has an operative position that causes the flow line to apply pressure into the upper chamber.

30. (New) The apparatus of claim 29 wherein:

the application of pressure into the upper chamber causes the spring to move into a compressed position.

31. (New) The apparatus of claim 26 wherein:

the valve system has an operative position that causes the flow line to apply pressure into the upper chamber and exhaust pressure from the lower chamber.

32. (New) The apparatus of claim 31 wherein:

the operative position causes the spring to move into a compressed position.

33. (New) The apparatus of claim 26 wherein:

the valve system has an operative position that causes the flow line to apply pressure into the lower chamber and exhaust pressure from the upper chamber.

34. (New) The apparatus of claim 33 wherein:

the operative position causes the spring to move into an extended position.

35. (New) The apparatus of claim 34 wherein:

the movement of the spring into an extended position causes the bollard to extend at a rate responsive to the magnitude of the pressure differential imposed across the piston.

36. (New) The apparatus of claim 34 wherein:

the valve system has a second operative position that exhausts pressure from the upper chamber at the beginning of bollard extension, and thereafter applies pressure into the upper chamber prior to the termination of the bollard extension to thereby decelerate the bollard as the bollard nears the end of its extension.

37. (New) The apparatus of claim 26 further comprising:

circuitry operably connected to the valve system to control operative positions of the valve system.

38. (New) The apparatus of claim 37 further comprising:

a sensor arranged to detect a vehicle approaching the apparatus, which sensor is operable to activate the circuitry to move the bollard into an extended position within a time frame that intercepts the approaching vehicle.

39. (New) The apparatus of claim 38 wherein:

the sensor comprises a detector operable to determine whether a vehicle approaching the apparatus is accelerating a rate greater than a predetermined rate of acceleration.

40. (New) The apparatus of claim 21 further comprising:

a centralizer receiving the lift mechanism and received at least in part within the spring.

41. (New) The apparatus of claim 21 further comprising:

a casing received within the housing, which casing reciprocatingly receives the bollard.

42. (New) The apparatus of claim 41 further comprising:

an abutment between the bollard and the casing for limiting extension and retraction of the bollard.

43. (New) The apparatus of claim 21 wherein:

the apparatus is substantially underground when the bollard is in a retracted position.

44. (New) A method comprising:

providing a housing;

reciprocatingly placing a bollard within the housing, which bollard has a plate disposed therein;

reciprocatingly placing a spring within the bollard;

securing a proximal end of the spring to the plate;

placing a lift mechanism at least in part within the spring; and

using the lift mechanism to reciprocate the spring between compressed and extended positions, which compression and extension of the spring causes reciprocating of the bollard between retracted and extended positions.

45. (New) The method of claim 44 further comprising:

providing an underground foundation of reinforced cementitious material, which underground foundation has an upwardly opening chamber terminating near the surface of the ground; and

securing the housing in the chamber.

46. (New) The method of claim 45 further comprising:

using the foundation to transfer the force of impact on a bollard in an extended position to the ground surrounding the foundation.

47. (New) The method of claim 44 wherein:

the lift mechanism comprises a cylinder, a piston shaft reciprocatingly received within the cylinder, and a piston terminating a distal end of the piston shaft; and further comprising:

securing the piston shaft to the plate; and

using the piston to divide the cylinder into an upper chamber and a lower chamber.

48. (New) The method of claim 47 further comprising:

connecting a flow line for operation on the upper chamber and the lower chamber through a valve system, which valve system has a plurality of operative positions to cause the flow line to operate on the upper chamber and the lower chamber.

49. (New) The method of claim 48 further comprising:

operating the valve system in an operative position that causes the flow line to exhaust pressure from the lower chamber to equalize the pressure between the upper and lower chambers.

50. (New) The method of claim 49 wherein:

the equalization of pressure between the upper and lower chambers causes the spring to move from a compressed position to an extended position.

51. (New) The method of claim 48 further comprising:

operating the valve system in an operative position that causes the flow line to apply pressure into the upper chamber.

52. (New) The method of claim 51 wherein:

the application of pressure into the upper chamber causes the spring to move into a compressed position.

53. (New) The method of claim 48 further comprising:

operating the valve system in an operative position that causes the flow line to apply pressure into the upper chamber and exhaust pressure from the lower chamber.

54. (New) The method of claim 53 wherein:

the operative position causes the spring to move into a compressed position.

55. (New) The method of claim 48 further comprising:

operating the valve system in an operative position that causes the flow line to apply pressure into the lower chamber and exhaust pressure from the upper chamber.

56. (New) The method of claim 55 wherein:

the operative position causes the spring to move into an extended position.

57. (New) The method of claim 56 wherein:

the movement of the spring to an extended position causes the bollard to extend at a rate responsive to the magnitude of the pressure differential imposed across the piston.

58. (New) The method of claim 56 further comprising:

operating the valve system in a second operative position that exhausts pressure from the upper chamber at the beginning of bollard extension, and thereafter applies pressure into the upper chamber prior to the termination of the bollard extension to thereby decelerate the bollard as the bollard nears the end of its extension.

59. (New) The method of claim 48 further comprising:

operating the valve system in a first operative position that causes the flow line to apply pressure into the upper chamber, which application of pressure into the upper chamber causes the spring to reside in a compressed position.

60. (New) The method of claim 59 further comprising:

operating the valve system in a second operative position that causes the flow line to exhaust pressure from the upper chamber to equalize the pressure between the upper and lower chambers.

61. (New) The method of claim 60 wherein:

the equalization of pressure between the upper and lower chambers causes the spring to move from a compressed position to an extended position.

62. (New) The method of claim 61 further comprising:

operating the valve system in a third operative position that causes the flow line to apply pressure into the upper chamber, which application of pressure into the upper chamber causes the spring to move from an extended position to a compressed position.

63. (New) The method of claim 62 further comprising:

causing the flow line to exhaust pressure from the lower chamber.

64. (New) The method of claim 59 further comprising:

operating the valve system in a second operative position that causes the flow line to apply pressure into the lower chamber and exhaust pressure from the upper chamber.

65. (New) The method of claim 64 wherein:

the second operative position causes the spring to move from a compressed position to an extended position.

66. (New) The method of claim 65 wherein:

the movement of the spring to an extended position causes the bollard to extend at a rate responsive to the magnitude of the pressure differential imposed across the piston.

67. (New) The method of claim 65 further comprising:

operating the valve system in a third operative position that causes the flow line to exhaust pressure from the upper chamber at the beginning of extension of the spring, and thereafter apply pressure into the upper chamber prior to termination of the extension of the spring to thereby decelerate movement of the bollard from a retracted to an extended position.

68. (New) The method of claim 67 further comprising:

operating the valve system in a fourth operative position that causes the flow line to apply pressure into the upper chamber, which application of pressure into the upper chamber causes the spring to move from an extended position to a compressed position.

69. (New) The method of claim 68 further comprising:

causing the flow line to exhaust pressure from the lower chamber.

70. (New) The method of claim 65 further comprising:

operating the valve system in a third operative position that causes the flow line to apply pressure into the upper chamber, which application of pressure into the upper chamber causes the spring to move from an extended position to a compressed position.

71. (New) The method of claim 70 further comprising:
causing the flow line to exhaust pressure from the lower chamber.

72. (New) The method of claim 48 further comprising:
operating the valve system with circuitry.

73. (New) The method of claim 72 further comprising:
providing a sensor to detect an approaching vehicle; and
activating the circuitry in response to the detection of the vehicle to reciprocate the bollard into the extended position within a time frame that intercepts the approaching vehicle.

74. (New) The method of claim 44 further comprising:
placing a centralizer at least in part within the spring; and
receiving the lift mechanism within the centralizer.

75. (New) The method of claim 44 further comprising:
placing a casing within the housing; and
reciprocatingly placing the bollard within the casing.